Application No. 10/765,252
Paper Dated March 19, 2008
In Reply to USPTO Correspondence of September 20, 2007
PPG Docket No. 1908A1
Our File No. 3948-035031

REMARKS

This Amendment cancels non-elected claims 10-23 and amends claim 1 in accordance with the original disclosure. Support for the claim amendments is found, for example, in the specification at paragraphs [0015], [0016] and [0018] and Examples 1 and 2. Claims 1-9 remain in this application

Rejections Under 35 U.S.C. §112

Claims 1-9 stand rejected under 35 U.S.C. § 112, first paragraph, in that the Examiner believes the phrase "average molecular distribution of three monomeric units" was not described in the specification as originally filed. While Applicant continues to disagree with the Examiner's position for the reasons set forth in the previous Amendment and the Declaration Under 37 C.F.R. § 1.132, Applicant has amended claim 1 to specifically recite the ratio language found in original paragraph [0018] of the specification. Therefore, reconsideration of these rejections is respectfully requested.

Claims 1-9 also stand rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness for substantially the same reason as above. Applicant believes that the above amendment to claim 1 also overcomes this rejection. Therefore, reconsideration of these rejections is also respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 1-6, 8 and 9 stand rejected under 35 U.S.C. § 103(a) for obviousness over Chang et al. (US Pat. 3,917,590) (hereinafter "the Chang patent"). Claim 7 stands rejected under 35 U.S.C. § 103(a) for obviousness over Chang in view of Watson (US Pat. 4,264,752) (hereinafter "the Watson patent"). Each of these rejections is respectfully traversed for the following reasons.

Claim 1 is directed to a trimeric unsymmetrical polyurethane polyol comprising the reaction product of a diisocyanate; a linear aliphatic diol having 1-6 carbon atoms; and a linear polymeric diol having at least one oxycarbonyl linkage and having from 5-20 carbon atoms. The trimeric polyurethane polyol is represented by the

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formula: x moles aliphatic diol: 1 mole diisocyanate: y moles polymeric diol, where x+y=2. The polyol has hydroxyl termination.

The Chang patent teaches a composition formed by the reaction product of a polyurethane polyol, which must contain at least 0.075 percent by weight acidic carboxyl groups, with an alkylenimine. The claimed invention does not claim a polyurethane polyol with an acidic carboxyl group. Instead, the terminal groups of the claimed trimeric polyol have linear polyol functionality, as opposed to a branched structure of an acidic carboxyl group such as in Chang. Both terminal ends of the claimed polyol are linear structures based on the linear nature of the aliphatic diol and the oxycarbonyl linkage. Nothing in Chang teaches or suggests a trimer with such a linear polyol on either end. Also, the Chang patent specifies carboxylic acid functional polymers that have a functionality of 3 or more, whereas the presently claimed invention specifies linear polymers with a functionality of 2. Moreover, the claimed invention does not use the trifunctional compounds such as trimethylpropane, as discussed in the Chang patent. Further, Chang requires the reaction of carboxylic acid groups that are reacted with polyimines. Additionally, Chang does not teach or suggest the specific formula and ratios in amended claim 1. Therefore, reconsideration of the rejection of claim 1 is respectfully requested.

Claims 2-9 depend from claim 1 and are believed to be allowable for the same reasons as claim 1. Additionally, claim 5 includes the limitation that the aliphatic diol has an odd number of carbon atoms. As discussed in the specification at paragraph [0015], Applicant has discovered that reacting the diisocyanate with an aliphatic diol having an odd number of carbon atoms reduces the crystallinity of the thus-formed urethane diol, which in turn lowers the viscosity of the urethane diol.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang as applied to claim 1 in further view of the Watson patent. As discussed above, Chang does not teach or suggest the limitations of amended claim 1. The Watson patent does not overcome this deficiency. Watson merely shows a polyurethane prepared from an alkylene glycol carbonate or a polyoxyalkylene glycol

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carbonate formed from hexylene glycol or propylene glycol. Accordingly, claim 7 is believed patentable over Chang and Watson. Reconsideration of the rejection of claim 7 is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, reconsideration of the rejections and allowance of claims 1-9 are respectfully requested.

Respectfully submitted,

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